A CRITIQUE OF WAGES THEORIES.

I.

"LABOR, like all things which are purchased and sold, and which may be increased or decreased in quantity, has its natural and its market price." In these words, Mr. Ricardo indicates the existence of two distinct questions as to the rate of wages.

The question of wages, the question, that is to say, of the value or price of labor, is but a special instance of the general law of value, and is to be solved by applying the general principle to the particular circumstances of the individual case. Now the fundamental law of value is that supply and demand are made equal by the action of price upon them; the problem is to find what price will do this in each case. But what that price shall be depends on the nature of the demand and the supply themselves.

Sometimes it is the nature of the supply of a commodity which decides what its price shall be, and it is sometimes the nature of the demand. This difference marks the first great distinction between the particular laws of the values of different things.

Demand is always affected by price. Corresponding to every possible price for every possible thing, there is a certain amount of that thing which is wanted at that price, and the amount differs for every different price. If this amount can be had the demand will be satisfied, and not otherwise.

Supply is sometimes affected by the price, and sometimes it is not. Where it can be increased and decreased at will it responds to the influence of price, and price naturally

gravitates to the cost of production. That is to say, the various circumstances under which the supply is brought forth regulate the price in this case, fixing it almost independently of what the demand may be. Demand accommodates itself to the price so fixed, and only influences price in so far as it affects the cost of production by influencing the amount produced.

Where the supply is fixed, the demand and the supply must still be equal, and they are made so by the influence of price upon demand. The problem now is, to find at what price the demand will be such as just to absorb the supply; and this depends upon the nature of the human desires which occasion the demand for the particular article in question.

From the foregoing considerations there arise two laws of value, one for commodities which may at will be increased or decreased in quantity, and another for those which cannot.

Besides, however, those commodities whose supply can be increased or decreased at will, and those others whose supply cannot be increased or decreased at all, there are others whose supply can indeed be increased or decreased in quantity, but at so slow a rate, that for moderate periods of time any such changes may be disregarded.

Labor is such a commodity. It is capable of indefinite increase and its supply is potently affected by price, so that economists speak sometimes of its cost of production as its natural price. Such a law of natural price would be decisive of the rate of wages in a stationary state of society, and would at all times serve as a declaration of the ultimate tendency of the principle of population. But the price to be gotten for labor is not the motive for producing laborers. Labor is not produced as other commodities are, on purpose to sell. Economic motives may restrain men's desire to bring children into the world, but they seldom stimulate a passion which is quite strong enough in itself. But, except in a stationary industrial state, any tendency

of price to conform to the cost of production would remain unfulfilled, for the reason that labor, of all things, varies most slowly in supply. During moderate periods of time, it may be considered as stationary, and, in a progressive state of society, a thousand changing circumstances intervene before a fresh supply can be brought to market to influence price. If, therefore, we wish to learn the laws of the actual price of labor, we must treat the supply as, for the time being, a fixed quantity, and must inquire at what price the demand will just equal it. This we may call the market price; and the foundation on which a true theory of market price must rest is a correct knowledge of the nature of the demand. The errors of economists in their theories about wages are largely due to their failure to comply with this condition.

Ricardo spoke of the market price of labor as fixed by supply and demand; but, as we shall see, he failed to prosecute the analysis of demand to its proper conclusion.

II.

Of "the Natural Price of Labor," Ricardo says that it "is that price which is necessary to enable the laborers, one with another, to subsist and to perpetuate their race, without either increase or diminution." Thus defined, the natural price of labor is a definite amount of certain commodities, chiefly food, clothing and shelter, and such comforts as may be necessary to the continuance of the race. Unlike the market price of labor, which is a variable quantity, this natural price is a practically permanent amount, fixed by the circumstances under which the supply is produced; or in other words, by the physical requirements of the laborers.

Economists prior to Mr. Ricardo had mainly concerned themselves with this law of natural wages. Practically the same doctrine as that of Ricardo is found in *The Wealth*

of Nations, whence it was copied and amplified by succeeding writers. Adam Smith had taught that wages tend to a minimum, and that they can never rise above this minimum, except by reason of a constant progress going on in the national wealth. Ricardo did but formulate this doctrine with greater precision. Smith was no less positive than Ricardo, that in a stationary state "the competition of the laborers and the interest of the masters would soon reduce them (*i. e.*, wages) to this lowest rate which is consistent with common humanity";—a rate which he elsewhere explains to be that which would maintain the laborer and enable him to bring up a sufficient family to perpetuate the race of workmen.

The successors of Adam Smith followed closely in his footsteps. Among his early followers, J. B. Say is easily first, whether we consider the popular influence of his works, or their scientific merit. After him none, perhaps, is more conspicuous than Storch, the instructor of the Czar Nicholas. Both of these writers reiterate Smith's doctrine of the tendency of wages to a minimum, and repeat his opinion that if the laborer ever gets more than this, it is only because the wealth of society happens at that time to be increasing. They repeatedly state that it is not the actual amount of wealth, but its constant progression, which assures to him any greater degree of comfort.

Underlying this teaching is, of course, the assumption of some active force, which impels population to overtake the means of subsistence, so that it is after all but another aspect of the famous Theory of Population which, some years before the date of Ricardo's writings, was proclaimed by Malthus, and which has since been known by his name. Malthusianism is, however, much older than Malthus, and its teachings had long before his time been among the commonplaces of social philosophy; nor were they ever disputed until after he had made them current, and had, by exhibiting their consequences in detail, made

of a neglected historical fact a burning social question. Malthus, himself, opens his treatise with an appeal to the authority of Dr. Franklin, and it was Dr. Johnson, who, as Thornton says, states the quintessence of Malthusianism in the saying, that "A man is poor; he thinks he cannot be worse; so 'I'll e'en take Peggy.'"

But, if Malthus did not first promulgate the doctrine which bears his name, he first recognized and first compelled attention to the cruel consequences which the principle of population engenders, and he first sought and pointed out a way of escape. When the painful consequences of the pressure of population upon subsistence were depicted in detail, there arose a reluctance to acknowledge them, and Malthus was denounced as an enemy of his kind. This was partly due to the shock produced by the impressive picture which he drew of seemingly inevitable human misery. In natural revolt from so repugnant an idea, people attributed to Malthus a feeling of indifference to or of pleasure in the woe of his fellow-men.

It must be admitted that this impression, though false, was yet, in some measure, justified by the way in which his views were first made public. The first edition of his *Essay* was intended to refute a current scheme of Utopian reform, by showing that misery has its roots in the physiology of plants and animals, and is therefore out of the reach of political remedies. He showed no way of escape, because the occasion did not immediately suggest inquiring for one. It was not his purpose to enter on a sociological investigation, but to answer a revolutionary political theory. The scope of his work was, however, soon seen to reach far beyond the ephemeral controversy which called it forth. But not, perhaps, until after the criticism which his first edition had aroused, did Malthus himself realize the widespread consequences of the facts which he, for the first time, had marshalled in their full force. In his second edition he takes a broader view. In it, he seeks, by demonstrating the causes of misery, to indicate the way

of escape. Instead of the prophet of evil, he becomes the herald of a better social order.

It had previously been accepted as part of the necessary order of things, that the laborer should lead a mere mechanical and animal life, separated by a practically impassable gulf from the owners of property and from polite society. In this spirit Dr. Johnson recommended to Boswell "a liberal kindness to the tenantry, as people over whom the proprietor was placed by Providence." Humane men, no doubt, treated their laborers with kindness, as, indeed, they did their horses and their cattle, and pious men cared for their simpler spiritual wants. But neither parson, nor landlord, dreamed that either the physical or the intellectual condition of the laboring poor was generally capable of radical improvement, or that these might reasonably aspire to enjoy more than the mere necessaries of life. Malthus was the forerunner of a new era, in which the equal manhood of all classes and their claim for equal opportunities are more and more admitted, and in which their aspirations after a fuller life are encouraged as possible and legitimate. Though the general tone of his treatise be sombre, its theme is the possibility of supplanting misery by prudence, and eluding the yoke of necessary poverty. Of cautious temperament, he hesitates perhaps too much in proclaiming a hope which, in his opinion, depends for its consummation on the self-restraint of mankind. His point of view and his motive are, however, clearly enough summed up on his concluding pages, in words which are no less weighty because carefully measured. "I should certainly say,"—this is his language,—"that the evils resulting from the principle of population have rather diminished than increased, even under the disadvantages of an almost total ignorance of the real cause. And if we can indulge the hope that this ignorance will be gradually dissipated, it does not seem unreasonable to expect that they will be still further diminished."

It is worthy of note that Malthus was the first to

furnish an adequate theoretical basis for such hopes, by pointing out that the minimum of wages is not irrevocably fixed by physical needs, but depends in part on the will and the habits of the laborers. This much was done already in the *Essay on Population.* But in his *Political Economy*, the work of his later years, he goes further, growing even bitter against the idea that the actual rate of wages is limited by a physical minimum. Quoting Ricardo's definition of the natural price of labor (Ricardo's *Political Economy* having appeared in the interval since the publication of the *Essay on Population*), as "that price which is necessary to enable the laborers, one with another, to subsist, and to perpetuate their race, without either increase or diminution"; he exclaims, "this price I should really be disposed to call a most unnatural price." (Vol. i. p. 247.) And he adds, that a main element in the circumstances which go to set the rate of wages is to be found in "the habits of the people." He attributes habits of improvidence to the influence of "despotism, oppression, and ignorance"; among the circumstances which contribute to prudence and improved standards of living, he finds "civil and political liberty and education." In the serenity of age he thus unconsciously accepts the element of truth which underlaid Godwin's Utopian schemes. Like Ricardo he had indeed already acknowledged in his earlier work the possibility of a high standard of living. Like Ricardo also he had there failed to assign to it its proper influence. Henceforth, however, it has been made prominent by all thoughtful exponents of the Theory of Population.

Possibly Malthus exaggerated the danger arising from the principle of population. It may be that the natural tendencies restricting population are stronger than he imagined. Sometimes, perhaps, the influence of liberty and education, and of all those complex circumstances which we call civilization, even restrict the tendency to increase so greatly as to endanger the healthful progress

of society. This almost seems true of France; perhaps it may also be true of the more educated classes elsewhere. But this does not destroy the importance of Malthus's teaching, nor does he deserve the less credit for his desire to promote human welfare, and for his earnest effort to secure it on a stable foundation. It is not too much to say, that consciously or unconsciously to their authors, all well-directed efforts to establish a sound theoretical basis for an advance in the condition of the poorer classes, trace their origin to the impulse of his teachings.

III.

So long as it was held that there is a natural price of labor, which is a fixed amount determined by certain physiological conditions, it might well seem superfluous to inquire closely into Market Wages. Accordingly little attention was paid to their law until after the time of Ricardo and Malthus.

Smith and his followers thought that the price of labor could only deviate from the necessary minimum of subsistence under the influence of a state of progressive increase or diminution of wealth. Malthus and Ricardo adopted the same opinion, but, in admitting the influence of differences in the standard of living, they modified the law in a way which eventually led to a practical nullification of it. With the change in the emphasis of the law, the standpoint of investigation naturally shifted. When it was seen that the natural rate of wages was fixed not by the rigid requirements of man's animal economy, but by a standard of living set by the very elastic limits of his will and his tastes, the law of natural wages lost its definiteness, and the importance became apparent of establishing some other law, more precise and of more immediate influence upon the actual course of affairs.

The prevailing industrial conditions concurred also in leading to a new treatment of the subject. From being comparatively stationary, industry was passing into a state of rapid expansion, and people's attention therefore turned from a law of natural wages, which presumed a permanent state of things, toward the discovery of a law which should account for the varying rates of wages in the different phases of the changing industrial state.

Thus the question of market wages came to predominate in discussions of the price of labor, and grew to be generally recognized, as in a peculiar sense the wages question, so that the question of natural wages was thenceforward relegated, for the most part, to discussions of the principle of population. It is the law of so-called market wages which shall from this time engage our attention.

Let us now define more precisely what is meant by market wages. When the market price of anything is mentioned, we naturally think of the varying rate which prevails in actual transactions, fluctuating, from day to day, with every breath of rumor and every transient opinion, however absurd or however plausible, which guides the acts of buyers or of sellers. But in this sense of the words, it is of the very essence of market price that it knows no law. We must therefore seek another meaning.

If employers could always know the extent and character of the present and of the prospective supply and demand, the price of labor would quickly settle at that rate which would induce a steady flow of demand just equal to the current supply. Such knowledge being, however, unattainable, errors of judgment must occur, which sometimes lead to unfounded hopes or to unreasonable fears, which again in their extremes lead to speculation or to panic. Under such influences demand may fluctuate excessively, and supply may be withheld from the market, or may be prematurely forced upon it. It is impossible to

lay down any law for these fluctuations. All that political economy can do is to indicate the rate at which, apart from them, the demand would in the long run absorb the supply as it comes on the market. The market constantly gravitates toward this rate, and all fluctuations do but oscillate around it, generating, as they do so, influences which tend to restore and perpetuate the normal rate, while the excessive price of one period is balanced by a slack price at another.

The term market wages may not be the best to express this rate to which the market is always tending, but since it has been adopted by economists in contrast to natural wages, it is perhaps best to retain it in that sense.

We are now ready to listen to Ricardo's statement of the law of market wages. He says: "The market price of labor is the price which is really paid for it, from the natural operation of the proportion of the supply to the demand; labor is dear when it is scarce and cheap when it is plentiful." It is certainly true, as we have seen, that the price of labor depends on supply and demand. Indeed, this is so obvious a truth that it is scarcely possible directly to refuse it acceptance.

Ricardo's statement is, however, incomplete. If he only means that the price of labor is the outcome of the supply and the demand, this is true indeed, but although true fails to solve the wages question, for it is no less true of the price of everything that is bought and sold. It is not enough to reiterate in regard to labor the general principle which governs every case of exchange value. One must inquire what distinguishes the particular law of price or value of labor from the laws of the values of other things, and this requires that one should observe in what respects labor itself differs from other things, in so far as its individual peculiarities seem likely to affect its price. Unfortunately Ricardo stopped short of doing this. Had he pursued the inquiry to its legitimate conclusion,

Political Economy might to-day perhaps be spared the discredit incurred by its failure to give a clear and decided answer to this all-important question.

In Ricardo's statement that market wages depend upon *the proportion* between the supply and demand, there lurks also in the word "proportion" the germ of an error, which, though dormant in his own treatise, was developed by his successors in such manner as to cause a radical misapprehension of the nature of the demand for labor. The word demand means in the only sense in which it has a proper place in Political Economy, the quantity of a thing which men stand ready to buy at some given price.[1] How much this quantity shall be depends upon price, and it is, therefore, absurd to speak of price as fixed by the "proportion between supply and demand," as though these were both fixed quantities. Price is fixed not by any preëxisting ratio between supply and demand, but by the sum of the conditions which make men willing to give one price rather than another for just that amount which happens to come to the market. As Mill says, when treating of the theory of value, it is not a question of the *proportion* of supply to demand, but of the *equation* of supply and demand. Unfortunately, when treating of wages, Mill himself forgot this fact.

But, however absurd it may be to speak of price as fixed by a "proportion between supply and demand," it could have done very little harm to use this expression, unless there had been a sense in which it was at least intelligible. Now, if you take demand to mean, not the quantity of a thing which is desired, but the quantity of something else which is offered in exchange for it, you get a definition of demand which is very unsuitable and misleading, to be sure, but one in which there really is

1 See Mill, book iii. chap. ii. 3. This is one of the fundamental principles of Political Economy, and to have clearly enforced this truth is one of Mr. Mill's greatest merits. His masterly demonstration forever makes any oversight inexcusable.

such a thing as a proportion between the demand and the supply, and in which this proportion does really affect the price, although it may not control it. By using the word demand in this way the successors of Ricardo were able to frame a theory of wages which was at once ingenious and simple. Treating the demand for labor as identical with capital, they arrived at the rate of wages by simply dividing the amount of capital by the number of laborers. This saved them the trouble of any further analysis of the nature of demand, or of the motives which induce people to buy labor, or to abstain from buying it. Thus they obtained a solution of the question which was beautifully neat and clear, and dispensed completely with human agency (except as to procreation), leaving the rate of wages to be fixed by the working of automatic natural laws. This result gratified the scientific mind by its logical deftness, and commended itself to practical men as a relief from all responsibility about a very ticklish matter. In taking this course the exponents of the Wages Fund theory chose an easy, but a fatal path: so far as the problem of wages is concerned, they doomed Political Economy to a half century of fruitless endeavor, and did much to degrade it in public estimation.

The authorship of the wages fund theory has been attributed to various writers; among others to Smith, to Malthus, and to Ricardo. Now, all of these writers assume that the relative abundance of capital and of labor exert a paramount influence on wages, which is indeed an obvious and fundamental fact. The wages fund theory, however, is something far more definite. It asserts that the law of wages is a matter of the division among the existing number of laborers of a certain fund whose magnitude is fixed, without regard to the value or efficiency of their labor. The origin and the limits of this fund may or may not be described; it may be the entire capital, or some particular portion of it; but in every case the keynote of the theory is found in the assumption that a certain fixed

fund is destined to the payment of wages, by the operation of some cause independent of the price of labor, or of its productive power. This doctrine was long considered one of the fundamental axioms of Political Economy, and a test of economic orthodoxy.

IV.

So far as I am aware, the earliest complete statement of this theory is in James Mill's *Elements of Political Economy*. The first edition of this book appeared about 1820. The younger Mill gives an interesting account of its origin. His father was intimate with Ricardo, who had, at his entreaty, published in 1817 the *Principles of Political Economy*. In 1819, when young Mill was but thirteen years old, his father, who had already accustomed him to a rather indigestible intellectual diet, deemed Ricardo's book too obscure or too difficult for the child's comprehension. This precocious child, many years after, relates the circumstances as follows:

"Though Ricardo's great work was already in print, no didactic treatise, embodying its doctrines in a manner fit for learners, had yet appeared. My father, therefore, commenced instructing me in the science by a sort of lectures, which he delivered to me in our walks. He expounded each day a portion of the subject, and I gave him next day a written account of it, which he made me re-write over and over again, until it was clear, precise, and tolerably complete. In this manner I went through the whole extent of the science, and the written outline of it which resulted from my daily *compte rendu* served him afterward as notes from which to write his *Elements of Political Economy*. After this I read Ricardo, giving an account daily of what I read, and discussing, in the best manner I could, the collateral points which offered themselves in our progress." . . . "I thought for myself almost from the first, and occasionally thought differently from him, though for a long time only on minor points, and making his opinion the ultimate standard. At a later period I even occasionally convinced him, and altered his opinion on some points of detail, which I state to his honor, not to my own. It at once exemplifies his

perfect candor, and the real worth of his method of teaching."—*Mill's Autobiography*, pp. 27–29.

Mr. Mill does not appear to have claimed any originality for his statement of the wages fund doctrine, nor does his son put forward any such claim for him. Presumably they regarded his teachings as a re-statement, or at most, as a development, of Ricardian doctrine. And, while these are not contained or even implied in Ricardo's published opinions, they yet resemble them in such a way that they might easily pass for their legitimate progeny. We may suppose that they were orally transmitted by Ricardo, or were developed in discussions with him; or perhaps that they were in part suggested to the elder Mill by the criticisms of his young scholar. And if there was the same familiar intercourse between Malthus and Mill which each of these gentlemen had with Ricardo, Malthus too may have joined in the formulation of this doctrine, which, though unexpressed in his teachings, yet accords naturally with them. Such a genesis of the theory would be the less surprising, as Malthus and Ricardo were both, unlike either the older or the younger Mill, among the least systematic of writers.

James Mill distinguishes that portion of capital which is used to maintain labor, and is composed principally of food, from that which consists in materials, tools, or instruments. He does not, however, inquire whether this distinction affects in any way the demand for labor. The subject evidently seems to him so simple that his opinions are all summed up in the following conclusion:

"Universally, then, we may affirm, other things remaining the same, that if the ratio which capital and population bear to one another remains the same, wages will remain the same; if the ratio which capital bears to population increases, wages will rise; if the ratio which population bears to capital increases, wages will fall."—*Political Economy*, p. 44.

This statement contains nothing but what is true, if it be construed to mean only what it explicitly says. Other

things being equal, wages will certainly rise if capital increases relatively to labor, and they will fall in the reverse case. But Mill means more than this; he means not only that they will rise or fall with the increase or decrease of capital, but that they will rise or fall *in exactly the same proportion*. This is shown in the passage immediately subsequent, in which he says:

> "From this law, clearly understood, it is easy to trace the circumstances which in any country determine the condition of the great body of the people. If that condition is easy and comfortable, all that is necessary to keep it so is to make capital increase as rapidly as population; or, on the other hand, to prevent population from increasing as fast as capital. If that condition is not easy and comfortable, it can only be made so by one of two methods: either by quickening the rate at which capital increases, or retarding the rate at which population increases; augmenting, in short, the ratio which the means of employing the people bear to the number of people."

It will be seen by this that Mr. Mill denies that anything else has any effect whatsoever on wages, except only the one cause named,—the relative abundance, that is, of labor and capital. The productiveness of industry, the infinite variety of human wants, and the infinite variety of the ways of satisfying them, employing, as they do, the most different proportions of labor and of capital,—none of these things has any influence on the amount of wages.

It is, however, in the writings of J. R. McCulloch that the wages fund doctrine takes its most rigid form. Mr. McCulloch wrote the article on "Political Economy" in the Supplement to the *Encyclopedia Britannica*. Afterward, in 1825, he published his *Principles of Political Economy*, and also his *Discourse on the Rise, Progress, and Importance of Political Economy*, containing an outline of a course of lectures delivered on that subject.

In his *Political Economy* (pp. 327, 328) he says:

> "The capacity of a country to support and employ laborers is in no degree dependent on the advantageousness of situation, richness of

soil, or extent of territory. These, undoubtedly, are circumstances of very great importance, and must have a powerful influence in determining the rate at which a people *advances* in the career of wealth and civilization. But it is obviously not on these circumstances, but on the actual amount of the accumulated produce of previous labor, or of capital, devoted to the payment of wages, in the possession of a country at any given period that its power of supporting and employing laborers must wholly depend. A fertile soil affords the means of rapidly increasing capital; but that is all. Before this soil can be cultivated capital must be provided for the support of the laborers employed upon it, just as it must be provided for the support of those engaged in manufactures, or in any other department of industry. It is a necessary consequence of this principle that the amount of subsistence falling to each laborer, or the *rate* of wages, must depend on the proportion which the whole capital bears to the whole amount of the laboring population. If the amount of capital were increased without a corresponding increase taking place in the population, a larger share of such capital would fall to each individual, or the rate of wages would be augmented. And if, on the other hand, population were increased faster than capital, a less share would be apportioned to each individual, or the rate of wages would be reduced."

And again, he says even more emphatically (p. 336):

"No proposition can be better established than that the market rate of wages, when reference is made only to a given moment, is exclusively determined by the proportion between capital and population."

Mr. Mill had at least recognized that there are other uses for capital besides paying wages, but McCulloch, if he was aware of the existence of such uses for capital, did not at least think it worth while to notice them, so little did he imagine that any difference in the way of employing capital could affect the rate of wages.

The credit of formulating the wages fund theory is often assigned to Mr. Senior, and he did at least help to name it.[1]

[1] The term Wages Fund does not seem to have come into use until a later time. Adam Smith speaks of "the funds which are destined for the payment of wages," but without attaching any special importance to the expression. Senior speaks of "the fund for the maintenance of laborers," by which he practically means the same thing as the wages fund. The earliest publication, however, in which I have found the exact words "wages fund" used in this manner is in J. S. Mill's Political Economy.

Senior published his *Lectures on Political Economy* in 1826, and in 1835 he furnished to the *Encyclopedia Metropolitana* the article on "Political Economy," which was afterward reproduced in separate form. Nearly one-half of this latter work is concerned, more or less exclusively, with the subject of wages. This question he not unjustly rated as "the most important and the most difficult of all the subjects embraced by Political Economy." But if its difficulties had been underrated by Mill and McCulloch, who seemed to think the question of wages so simple a matter that it might be settled off-hand, Senior exaggerated the obscurity of an already intricate subject by an excessive subtilty of language and a needlessly involved method. He begins by saying (I quote from the fifth edition, 1863, p. 154) that wages must depend "on the extent of the fund for the maintenance of laborers compared with the number of laborers to be maintained." Here we might suppose ourselves in possession of the pure wages fund doctrine. But returning a second time to this proposition (p. 174), he asks: "On what does the extent of that fund depend?" and answers: "In the first place, on the productiveness of labor in the direct or indirect production of the commodities used by the laborer; and, in the second place, on the number of persons directly or indirectly employed in the production of things for the use of laborers, compared with the whole number of laboring families." And again (p. 185): "The productiveness of labor being given, the extent of the fund for the maintenance of labor will depend on the proportion in which produce of labor is shared between the capitalist and the laborer." In this statement we seem to be transported fifty years into the future, and to find anticipated by Senior the opinion that wages are paid not out of capital, but out of product, a proposition which is common to many modern writers, and which President Walker makes the basis of his attack on the whole wages fund theory.

Next Senior asks how the product is divided between

labor and capital (excluding rent and taxes), and answers thus:

"The facts which decide in what proportion [*sic ?*] the capitalist and laborer share the common fund appear to be two: First, *the general rate of profit in the country on the advance of capital for a given period;* secondly, *the period which, in each particular case, has elapsed between the advance of the capital and the receipt of the profit.*"

According to this, it would seem that the rate of profits is first to be ascertained, and that the wages, or wages fund, are what is left after deducting from the entire product the amount reserved for profits. This, again, agrees exactly with modern theories, and is exactly the reverse of the wages fund doctrine, which implies that wages, being first ascertained, profits are the residuum left after deducting the amount of wages from the total product.

But if we were to stop here, we would carry away a very false impression of the final result of Senior's inquiry. He proceeds very properly to inquire what fixes the rate of profit. And he again reverses what had seemed to be his opinion, and pp. 186–190 treats profits as what is left out of product after repaying the advances in materials and in wages, thus arriving at the conclusion that:

"If the proportion of capital to labor remained unaltered, the rate of profit would be also unaltered. If each were increased or each diminished, but in different proportions, profits would rise or fall according to the relative variations in the supply of wages (*i. e.*, wages fund) and labor."

This implies not only that profits are determined by first determining the amount of wages, and deducting them from product; but also that the amount of wages is itself determined by the proportion between the number of laborers and the amount of the wages fund: by so tortuous a course does Senior arrive at a reassertion of the doctrine of Mill and McCulloch, the simplest and crudest form of the wages fund theory. We wonder that he takes so much trouble to

tell little, and we grudge the labor lost in travelling so hard a road, to find ourselves at last brought back to our point of starting. Nor are we soothed by finding this fact hidden in such misty phrases as this: "The rate of profits depends on the previous conduct of the capitalists and laborers of a country." (P. 190.)

Robert Torrens was older than Senior, and began half a generation earlier to write on Political Economy. The subject of wages, however, does not appear to have engaged his attention until 1834, eight years after Senior's Lectures, and just before that gentleman published his article in the *Encyclopedia Metropolitana.*

In the little treatise on *Wages and Combinations*, Col. Torrens reasserts, after the example of Smith and Malthus and Ricardo, the doctrine of a minimum of wages, determined by the necessities of the laborers. With this he combines the wages fund theory of Mill and McCulloch, and adds some new developments of his own. To the idea of a minimum of wages he contrasts the idea of a maximum of wages. Thus, he says (p. 8), that it is physically impossible that wages should continue to exceed the net produce of industry, after replacing the amount expended for materials and implements. Deducting from this physical maximum of wages a sum sufficient to induce capitalists to carry on business, or, in other words, the minimum rate of profit, we obtain "the moral maximum of wages."

Having settled the maximum and minimum limits between which it is possible for wages to vary, Torrens next turns to that which he considers to be the real wages question, namely, the determination of "the precise circumstance which fixes the point at which actual wages settle." (P. 14.) A question which he answers as follows:

"The one and the only cause which can determine where, between the maximum and the minimum, . . . wages . . . . shall be

fixed, is the proportion between the number of laborers and the quantity of that component part of . . . . . capital," which "can be exchanged for labor."

Thus far his answer does not appear to differ materially from that of Mill and McCulloch, but he is not satisfied with this statement, for he goes on to do what they failed to do, in that he inquires what part of capital is set aside to pay wages, and what part is reserved for other uses. And it is this inquiry which makes his treatment of the subject especially noteworthy. In order to find the wages fund, he deducts from the total capital that part which consists in the materials and implements used in production, and the entire remainder he assigns to the payment of wages, except only so much as is needed to pay the current rate of interest on capital.

The distinction which he draws between the capital used for paying wages and that used for furnishing instruments is a fundamental one, and is, I believe, even more fruitful in its influence on wages than Torrens realized, for he too fails to perceive that the manner in which capital is distributed between the two uses is variable, and that its variations affect the rate of wages, a thing which they certainly do in a very great degree.

"Assuming that all the laborers are already employed, and that no addition is made to their numbers, it is morally certain that the whole of every new accumulation of capital will assume the form of increased wages, until the reward of the laborer has reached its maximum. New accumulations of capital are made for the sake of obtaining advantage therefrom. But it is impossible that new accumulations of capital should be advantageously employed unless laborers can be procured. The new capital, accumulated for the purpose of gaining an advantage by the employment of laborers, comes into the market and bids for hands; the old capital, in order to retain its hands, is compelled to bid against the new, and this process goes on until the whole existing capital is invested in wages, seed, materials, and machinery. *But as a given number of hands can use only a given quantity of seed, materials, and machinery*, these ingredients or component parts of capital cannot be increased while the quantity of labor remains the same; and, therefore, it is only in the form of increased wages that the new accumulations of capital can appear." (Pages 16, 17.)

According to this view, the wages fund is that portion of capital which is left over after providing the laborers with such implements and materials as they require. Since Torrens conceives the amount of implements and materials to be a fixed sum for each laborer, it follows, of course, that the greater the number of laborers, the larger the amount of capital which will be needed for these uses, and that the larger the amount absorbed in this way, the smaller will be the residue left to pay labor with. In other words, the greater the number of laborers, the smaller will be the amount of the wages fund, or sum total of wages; and the fewer the laborers, the greater will be not only the individual but also the aggregate wages. So startling a result certainly deserves a degree of notice and comment which Torrens did not give it.

At a much later day, Cairnes called attention to the same paradox in connection with his own view of the theory of wages, but he, too, failed to see its full significance. Of this we will say more when speaking of his work. Meanwhile, succeeding writers were content to speak of the proportion of capital devoted to the payment of wages, or the wages fund, just as though its relation to the entire capital were well ascertained. It is to be regretted that Torrens did not push his analysis further, and that the forward step which he made led to no result.

V.

We have seen how John Stuart Mill was in a manner associated in the first promulgation of the wages fund theory, which thenceforward received general acceptance by economists. A quarter of a century afterward he published, in 1848, his *Principles of Political Economy*. In this treatise he undertook, as he tells us in his preface, to resurvey the field of Political Economy with a view to unite in a harmonious whole the results of previous researches,

and to apply their teaching to the social condition and prospects of mankind. In this way, he hoped to produce a book which would fill the place, as a manual of the science, formerly held by Adam Smith's *Wealth of Nations*, but which that book had, to a great extent, lost in the advance of scientific knowledge.

Mr. Mill succeeded so well in realizing this expectation, that after the further lapse of more than forty years his book is still generally recognized as the most complete and masterly work of its kind in our language, and we may look upon what he says as the final and most authoritative statement of the wages fund theory. After noticing that custom is seldom without influence upon wages, but that, in the present state of society, competition must be regarded as their principal regulator, Mr. Mill goes on to say:

"Wages, then, depend mainly upon the demand and supply of labor; or, as it is often expressed, on the proportion between population and capital. By population is here meant the number only of the laboring class, or rather of those who work for hire; and by capital, only circulating capital, and not even the whole of that, but the part which is expended in the direct purchase of labor. To this, however, must be adde all the funds which, without forming a part of capital, are paid in exchange for labor, such as the wages of soldiers, domestic servants, and all other unproductive laborers. There is unfortunately no mode of expressing by one familiar term the aggregate of what may be called the wages fund of a country; and as the wages of productive labor form nearly the whole of that fund, it is usual to overlook the smaller and less important part, and to say that wages depend on population and capital. It will be convenient to employ this expression, remembering, however, to consider it elliptical, and not as a literal statement of the entire truth.

"With these limitations of the terms, wages not only depend upon the relative amount of capital and population, but cannot, under the rule of competition, be affected by anything else. Wages (meaning, of course, the general rate) cannot rise but by an increase of the aggregate funds employed in hiring laborers, or a diminution in the number of the competitors for hire; nor fall, except either by a diminution of the funds devoted to paying labor, or by an increase in the number of laborers to be paid."—Mill's *Political Economy*, vol. i. pp. 420, 421, American edition.

Since the most eminent advocate of the wages fund theory rests his case here, it is appropriate for us to make this statement the basis of our examination.

If, by saying that wages depend on the proportion between population and capital, or that part of capital which is expended in the purchase of labor, it were only meant that, after we have excluded from capital all that part which is used for other purposes, that then the remaining portion, or wages fund, will, if divided by the number of laborers, yield a quotient equal to the average wage (for such periods of time as occur between its successive distributions), the wages fund theory would indeed be self-evident; but it would be the merest truism. And yet, harmless and insignificant as it might be in itself, its acceptance as explaining the phenomena of wages would be fatal to all serious inquiry, by setting up as a solution that which is in reality no solution at all, but only an identical proposition. The intelligent advocates of the wages fund theory, and Mill in particular, certainly did not intend anything so meaningless.

Nor can we accept Mr. Cairnes's interpretation of the passage above quoted as meant for a statement, not a solution, of the wages problem. To lead his readers to the threshold of so crucial a problem, and consciously to abandon them there, would be a very impotent performance, and very unworthy of Mr. Mill's great name, and I may add, very unlike his character. His language also encourages no such opinion; on the contrary, it clearly implies that the amount of the wages fund bears some fixed proportion to the total capital, or that it is at least independent of the number of laborers, or of the efficiency of their labor, being a specific part of capital devoted, or appropriated, or determined to the payment of wages.

This assumption, of a fund especially set aside for the payment of wages, is closely connected with that erroneous conception of the nature of the demand for labor which we have alluded to above. When treating of the demand and

supply of commodities in general, Mill insists that demand should be understood to mean the quantity of a thing demanded; but in the chapter on wages he overlooks this teaching, and speaks of the demand for labor not as the quantity of labor demanded, but as the quantity of capital, or of that certain part of capital devoted in some mysterious way to the payment of wages.

The theory implies that this proportion of capital is irrevocably determined to the purchase of labor; that, no matter what the price is, this whole sum will be used in buying labor; and, that under no circumstances will any greater sum be so used. But the demand for every other commodity varies with its price, and why not, then, the demand for labor? When asked to believe that in buying labor purchasers act so differently from what they do when buying anything else, we should at least be given some plausible explanation of so extraordinary a proceeding.

The wages fund theory assumes that the supply and demand of labor are both of them fixed quantities, so far, at least, as any influence of price upon them is concerned; so that over against a fixed amount of labor, irrevocably destined to be sold, on the one side, there is set, on the other side, a fixed quantity of commodities irrevocably destined to its purchase. Were this a correct presentation of economic facts, all the usual action and reaction of price upon supply and demand would be at an end, and the truth of the wages fund theory would follow of necessity. For if the holders of two commodities of fixed amount are absolutely resolved, each of them, to devote his entire supply of that one of the commodities which he holds to the purchase of the other commodity, regardless of its price, the inference is inevitable that the rate at which the two commodities shall exchange will depend exclusively on their relative amounts. From the assumption that this is true of labor and capital, it inevitably follows that the question of wages is a question of simple division, and that all that is needed is to divide the number

of laborers into the amount of the wages fund, the quotient being the average rate of wages, which is thus fixed without regard to the degree of productiveness of labor. Wages cannot permanently be less, for then there would be a surplus of unemployed capital competing for the purchase of labor, and raising its price; nor can they be more, without throwing laborers out of employment, and starting a competition which would soon drag the price down again. No assiduity on the part of the laborers, no improvements in production, could raise wages, and just as surely, no degree of neglect or indolence could lower them.

This doctrine was delightfully simple, and a very comfortable one, except for the laborer. It acceptance was no doubt facilitated by the ready explanation it offered for any deficiency in market wages at any given time and place, much as the Malthusian theory was welcomed by those who saw in it a convenient explanation of poverty and suffering in general, and who cared little, perhaps, for its pointings toward a way of escape from that suffering. Nor is its association with Malthusianism purely accidental. The only means which it offered to laborers for improving their condition was by applying the self-imposed and painful restraints which Malthus suggests, in the hope of benefits accruing to future generations, in which they would not themselves participate. The savings of the capitalist might indeed cause a rise in wages, but all gains arising from discoveries, inventions, and all improvements of industrial methods would inure as profits to the lot of the capitalist, as the residuary legatee of productive industry. (Mill, vol. i. p. 512.) These two doctrines, so distasteful to the laboring class, are doubtless in large measure the cause of their deeply-rooted aversion to the teachings of the so-called orthodox Political Economy.

The authors of this theory must have known that a portion of capital is used in other ways than in paying wages, and they ought to have asked how much this is,

and what causes determine its amount, for these are the ultimate causes of wages. And yet they never seem to suspect that the very object of their inquiry, the price of labor, is itself among these causes. And not only did they fail to ask how much capital is set aside for use as instruments and materials; most of them neglected even to ask how frequently the wages fund was divided among its recipients; a thing which is just as important as its amount, seeing that a sum which is distributed every six months yields just twice as much as an equal sum distributed once a year.

The wages question can only be solved by answering these inquiries; and the only way to answer them is to examine what governs the demand for labor, and how demand is made equal to supply, in the case of this particular commodity. Any deviation from this, the logical method, leads surely to error. In Mill's case it is doubly inexcusable, because he acknowledges the wages question to be a case of value, and half recognizes that the natural order of the discussion is to treat it as such. (See vol. i. pp. 535, 536.)

VI.

For a score of years longer, the wages fund doctrine passed for a final solution of the question, and was cherished as a corner-stone of economic science. Attacked finally by Longe, Leslie and Thornton, and suddenly abandoned by Mill, a last rally in its support was made by Mr. J. E. Cairnes, who undertook to rehabilitate it by introducing certain modifications which in his opinion were needed to its completion and final establishment.

It is Cairnes's merit, that he first asked, what determines the amount of the wages fund. He was led to recognize that the wages fund constitutes at different times very different proportions of the whole capital. Mr. Torrens had already sought the amount of the wages fund by

deducting from capital the implements and materials needed for the laborer's outfit, but he had failed to observe that this amount is a variable one, and his thought had lain unfruitful. Mr. Cairnes (in his *Leading Principles of Political Economy*, published in 1874) gave it fresh vitality, by showing that there are, at different times, differences in the proportion between the wages fund and capital, corresponding to differences in the national industries and methods of production. It is clear that if we knew the number of laborers, and the average amount of instruments and materials needed to set each one at work, we should know the total amount of instruments and materials; and, deducting these from the total capital, we could arrive at the amount available for distribution in wages, or the wages fund. This is Cairnes's view, which so far is correct. But, unfortunately, Cairnes, in his turn, fails to inquire into the causes of the existing industries and methods.

One set of these causes is to be found in the character of the natural resources of any country, another in the state of the arts, and a third in the nature of human desires. If all of these things were invariable, or if, at least, none of them varied under the influence of price, then Cairnes's explanation would exhaust the causes which go to make up the rate of wages; and in spite of the strange consequences to which it leads, his position would be impregnable. For then the national industries and their prevailing methods of production would be really fixed independently of the rate of wages, and would decide what stock of implements and materials must be assigned to each laborer. By designating in this manner the amount of auxiliary capital, they would designate by implication the amount left for remuneratory purposes, *i. e.*, the wages fund.

But the price of labor does affect the choice of the industries and methods which prevail. It influences desire, because it affects the relative price of the objects of

desire, in so far as labor enters into their production in different proportions. It therefore affects the choice between the industries which produce different kinds of goods, by reason of its influence on the desire for those goods. It also affects the choice between different methods of producing the same goods, by enhancing or cheapening the cost of those methods into which labor more largely enters, as compared with those into which the use of fixed capital enters more largely. In these ways the price of labor does potently affect the demand for labor, and no explanation of the phenomena of wages will hold good which ignores this fact. Indeed, it is less proper to speak of the wages fund as the source of wages than as their sum or aggregate.

One startling consequence of his own theory, Cairnes himself points out. Since the amount of auxiliary capital varies directly as the number of laborers, and increases in the same ratio as they increase, it follows when the amount of capital is unchanged, that as laborers increase, the fund for paying wages diminishes, while of this diminished sum each wage-earner receives a diminished share. The more there are to divide the wages fund among, the smaller will the wages fund be. In other words, the aggregate of wages paid to laborers will be in inverse ratio to the number of the laborers, and that diminished aggregate will be shared among a larger number of recipients.

Cairnes, however, dismisses this as being without important practical consequences. But let us inquire more specifically what the consequences are. For our present purpose, we may assume that there is in the United States for every 1,000,000 laborers, a total capital, speaking roughly, of $2,000,000,000, or $2,000 per head. If $1,600 of auxiliary capital per head, or a total of $1,600,000,000 is needed, the wages fund will get the remainder, which is $400,000,000, or $400 per head. If we further suppose that the returns for merchandise are received, on the average, one year after the labor employed about it, this fund will

be distributed once every year, making an average wage of $400 for every laborer, which amount is perhaps not very far from the actual average. If now, where there are already 1,000,000 laborers, there should be introduced a fresh body of 100,000, there will be required $1,760,000,000 for auxiliary capital, at the old rate of $1,600 per head. This will leave $240,000,000 for the wages fund, which sum, divided as before, once a year, among the whole number of laborers, which is now 1,100,000, will yield a wage of $218.18 a year for each. Should another 100,000 emigrants arrive, the wages fund will fall to $80,000,000 and the average wage to $66.67. If 50,000 more arrive, the whole capital will then be absorbed in auxiliary purposes, and the wages fund will dwindle to nothing. If still more immigrants arrive, they must of very necessity be idle, even though willing to work without pay, for there would be no capital to supply them with tools and materials.

A theory, by virtue of which an addition of twenty-five per cent. to the number of laborers will abolish wages, is obviously absurd. and this absurdity is heightened when we consider that the same result would follow from any such increase in efficiency as would enable a single laborer to manipulate an increased amount of implements and materials; the very productiveness of labor curtailing wages in the same way as an increase in the population.

Probably Cairnes would have admitted that, short of the results just described, the price of labor would change, and would bring about a change in the prevailing industries and methods; that the abundance and cheapness of labor would obtain for it new avenues of employment, where less implements would be used; and that capital, grown scarce and dear, would be reserved for those employments where it is most urgently needed. But if these things occur on a great scale, where the increase of capital or labor is great, they would no less occur in a corresponding degree for every change, however small, in the relative amounts of labor and capital. This is but saying that, so far as

concerns the relative amounts of capital and of labor employed, the national industries and methods depend in part upon the rates of interest and wages. In vain does Cairnes endeavor to explain the demand for labor independently of its price; his own reasoning, when pushed to its legitimate consequences, demonstrates the influence of price.

VII.

Mr. T. D. Longe and Mr. T. E. Cliffe Leslie, the former in a pamphlet entitled *Refutation of the Wage Fund Theory of Modern Political Economy*, published in 1866, the latter in an article in *Fraser's Magazine* for July, 1868, both made vigorous onslaught on the wages fund theory. The decisive blow, however, was given when Mr. William T. Thornton, in 1869, published his treatise on *Labor*, and when Mr. Mill hastened (in the *Fortnightly Review*, May, 1869) to give in his adhesion to Thornton's opinion, and to renounce, with a good deal of emphasis, the doctrine which he had himself helped to frame.

Thornton was not content, however, with demolishing the wages fund. The whole theory of value was involved in his objections. In support of his attack upon it, he alleges some instances where the equation of supply and demand fails, and he claims that because it fails in them it never acts at all; much as though one were to deny the power of gravity because the solar system does not collapse. The exceptions which he adduces all fall into one or other of two classes. In one class the equation of supply and demand fails to fix the price because the demand does not vary when price varies; in the other class it fails because the slightest variation of price occasions an excessive change in the demand, so that at one price demand might exceed supply, while at the slightest advance in price it would fall short of supply. In the former case there may be many prices at which supply and demand would be equal. In it the failure of the equa-

tion of supply and demand is due to the immobility of the demand; while in the second case it is due to its excessive mobility. Such cases may occur in a restricted market; but being expressly founded on a suspension of the relation which generally exists between price and demand, they are exceptions of the kind which prove the rule.

Mill himself admits that they do not annul the general theory of value, and in this respect he repudiates the more ambitious part of Thornton's claims. He, however, believes labor to be an exceptional case, and, as far as it is concerned, he concurs with Thornton's views.

Let us listen to Thornton's own statement:

> "The quantity of labor which an employer needs depends upon the work he wants to have done. If there are certain jobs which it is essential to him to get finished within a certain time, he will, if labor be dear, consent to pay pretty high for the quantity needed to complete the jobs within the time. But he will not, merely because labor happens to be cheap instead of dear, hire more than that quantity. . . . . When an employer's demand for labor is fully supplied, he can have no demand left requiring to be supplied. If, at a given rate, he can obtain all the labor he is in a position to employ, he will not, merely because that rate happens to be a low one, either hire additional labor for which he has no employment, or voluntarily raise the rate, instead of retaining the difference for himself, and either spending it upon himself or laying it by."—THORNTON, *On Labor*, 2d ed., 1870.

Mill reëchoes the same thought, and to the question, "Does the employer require more labor, or do fresh employers of labor make their appearance, merely because it can be bought cheap?" he makes answer, "Assuredly, no!" (*Fortnightly Review*, May, 1869.)

If this be true, the equation of supply and demand must obviously fail, leaving price to be fixed by the higgling of the market, with the result dependent upon the relative power and dexterity of the parties to the exchange. It would seem proper in announcing so startling an opinion, to advance some evidence of its truth, and to tell why

mankind, who are governed by price in their demand for everything else, should so totally disregard its influence in the case of labor. If "the quantity of labor which an employer needs depends on the work he wants to have done," we ought to be told what determines how much work he does want to have done. Are we to understand that human desires are a fixed sum, and that they are already so fully satisfied that they would reject the opportunity for greater gratification? For otherwise a fall in the price of labor, as in the price of anything else, will enlarge the opportunity for indulging in these gratifications? There is nothing which ministers to so many wants as labor does; among them all is there none capable of expansion upon opportunity? After all, is it not true that the amount of "the labor he (the employer) is in a position to employ" is limited only by the means he possesses?

Let us see where Thornton's doctrine leads. If supply should exceed demand, the unemployed laborers would underbid the market; but this would be in vain, for, by the very terms of the supposition, no more work could be had; and yet, the more the price of labor fell the more keenly would laborers compete. Nothing could arrest the downward course of wages, short of the point where laborers would prefer to starve in idleness rather than work for less than would sustain life. Nor does Thornton hesitate at what is practically an avowal of this, for he asserts that the normal condition of the laborer is on the verge of starvation.

He has no substitute to propose for the wages fund theory more satisfying than the statement, that wages vary between a maximum and a minimum, and that the actual rate is the result of what it is not too strong to designate as industrial war. Of the maximum he says:

"If an employer were to confine his domestic expenditure within the very narrowest bounds, were to spend on his plant only just so much as was necessary to keep it in working order, and were to purchase only just so much raw material as it was necessary for him to work

up in order to go on working remuneratively, the remainder of his capital would represent both the utmost amount at his disposal for the payment of wages, and also an amount which he both could afford to spend, and would actually spend on wages, rather than not get the quantity of labor he required." (P. 86.)

Of the minimum he says:

"They cannot, of course, force the men to take less than they can live upon, but they both can and do force them to take as little more than the bare means of subsistence as it pleases them to offer. Thus, in a normal state of things—in a state, that is, in which laborers are too poor to combine (and throughout the world's history poverty has hitherto been, at most times and in most places, the normal condition of labor)—the price of labor is determined not by the supply and demand, which never determined the price of anything, nor yet generally by competition, which generally determines the price of everything else; but by combination among the masters. Competition in a small minority of cases, combination in a great majority, have appeared to be normally the determining causes of the rates of wages or price of labor." (P. 108.)

He finds the remedy in combinations by the laborers to raise wages. He would have them pit combination against combination. His teaching thus resolves the whole wages question into an implacable struggle between employer and employed, to be determined only by their relative skill and power of endurance, or, in other words, by craft or force; a clear case of "Pull, Dick; pull, Devil."

The wages fund theory attempted to regulate wages by an automatic mechanism, and taught that all efforts to raise or lower wages were useless. It was often used to preach down discontent, or to inculcate a contented resignation with the existing state of things. At first sight, Thornton's view seems to free the laborers from the bondage of this law, and to open to them prospects of almost unbounded hope; but, alas! these fair shows dissolve into vistas of interminable agitation, conflict, and discord.

Such a doctrine of wages, for we cannot call it a law of wages, is, perhaps, the most dispiriting to the friends of

human progress of any ever proposed, and all the more so because it fosters deceptive hopes.

The whole groundwork of Thornton's theory is radically false. The demand for labor is as surely affected by its price as is the demand for any other thing. Every fall in the price of labor extends the demand; every rise causes it to contract, and leads to the substitution of some other form of expenditure. It is true that labor enters into every form of expenditure, but not in the same degree in each. When buying personal services, such as those of teachers, policemen, or domestics, the outlay is almost purely for wages; wages form the principal part also in the price of hand-made commodities, such as laces. The rent of buildings, on the other hand, represents mainly interest on capital; the same is true of steamship rates, and in a less degree of railroad rates also. The proportion of price which represents wages varies infinitely, as between various commodities. But the demand for each commodity is influenced by its price. Just so far, therefore, as labor enters into the production of each of them respectively, just so far does the relative demand for them affect the demand for labor.

The price of labor, therefore, governs, in a sensible degree, the distribution of expenditure. But this is not the only way in which it affects the demand for labor. The same things can often be produced in various ways, employing different proportions of labor, and of implements and materials. The cheapest method will always be pursued, and one of the chief elements in determining which method is cheapest is the price of labor. One conspicuous illustration is found in the competition between labor and labor-saving machinery. But having treated this subject fully elsewhere,[1] I shall not discuss it further here.

[1] Quarterly Journal of Economics, October, 1888, and July, 1889; also Publications of the American Economic Association, March, 1889.

Although the specific ground of Thornton's attack on the wages fund theory is untenable, it nevertheless drove that theory from its position of undisputed authority. Indeed, it required but little critical observation of that theory to display its emptiness. It has since been the object of repeated attacks, until it has now practically passed into the limbo of abandoned theories. In England, the land of its birth, it has scarcely had a conspicuous defender since the death of Henry Fawcett. Nevertheless, Thornton's lively attack, and Mill's hasty capitulation, will long be remembered as a dramatic episode in the history of Political Economy.

Thornton's theory is founded on the assumption that the demand for labor is fixed independently of its price; and we must admit that his inference follows conclusively from this premise. He opposes his teaching to the wages fund theory, and no two theories could well be more diverse. Yet the wages fund theory itself reposes on the same assumption, namely, that the demand for labor is independent of its price; and no less than Thornton's teachings, it follows with equal conclusiveness from what seems to be an identical premise.

A very little examination, however, shows that Thornton meant by demand for labor the quantity of labor demanded; while the advocates of the wages fund theory meant by the same term the quantity of commodities offered in exchange for labor. Yet Thornton (page 83), in describing the wages fund theory, uses the words "demand for labor" in the sense appropriate to that theory, and does not perceive how different this meaning is from that which he elsewhere gives them. And Mill, who supports both theories in turn, appeals with equal confidence in each case to the same premise, only giving the same words, as contained in it, a different meaning. To complete the comedy, it was only necessary that this premise

should be, as it was, in both senses absolutely false, and inconsistent with Mill's other teachings.

I believe that no science quite equals Political Economy in the facility which it affords for using the same terms in absolutely different meanings without being found out. This may lend a charm to its study for those who enjoy humor; and when the different meanings are not only used by the same author, but jostle each other on the same page, the ludicrous effect is doubtless enhanced. Yet these vagaries do not conduce to strict scientific thinking, nor do they heighten the respect with which the science is regarded by those who lack the humorous sense.

VIII.

Up to this point in the history of the theory of wages it has been possible to trace a continuously progressive movement in the teachings of economists, as shown in the development and in the downfall of the wages fund theory. From this time out there is no such regular tendency discernible. No new doctrine has replaced the abandoned theory, or obtained the same general assent of scholars or of laymen. Here, then, is a fitting place to pause before examining the drift of recent and of contemporaneous thought on this subject.

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